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ABSTRACT

This fifth grade resource unit on regional studies is part of an articulated curriculum for grades K-12 that emphasizes sequential development of attitudes and skills, as well as generalizations and concepts. An inquiry teaching strategy encouraging children to find out things for themselves is presented. Children are asked to make guesses or set up hypotheses regarding regional situations by drawing upon previously-learned concepts and generalizations. The main theme of the course is that man uses his physical environment in terms of his cultural perceptions, values, and level of technology. The unit centers on selected sequent occupance case studies showing how man has dealt with his environment over time. The pupils focus upon a few case studies rather than a detailed study of each region. This course includes three main units, arranged geographically, that present an overview of the patterns of the country and a system of regionalization for the United States, Canada, and Latin America. The main part of each resource unit is set up in a double-page format to help teachers see the relationships among objectives, content, teaching procedures, and materials of instruction. (Related documents are: SO 002 730 through SO 002 733.) (Author/SJM)

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TEACHER'S GUIDE TO THE
FIFTH GRADE COURSE
on
REGIONAL STUDIES

This course is part of an articulated curriculum for grades K-12 and has been developed by the Project Social Studies Curriculum Center at the University of Minnesota.

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GOALS FOR THIS COURSE

The resource units make it clear that the fifth grade course is designed to teach attitudes and skills as well as generalizations and concepts. This section deals briefly with objectives for the course. Charts appended to this guide indicate more specifically the way in which goals are developed in the different units.

Behavioral Goals Related to Values

This course is designed to help pupils develop a a number of the values identified by the Center's staff as goals for the entire social studies program. For example, the units are built to try to develop curiosity about social data and scepticism of the finality of knowledge.

It should not be thought that some of the attitudinal goals are neglected merely because there is no check against them under a specific unit in the chart on attitudinal goals. The checks indicate those units in which the goals have been kept in mind in designing specific activities and sometimes the entire unit approach. Many of the others will be reinforced in units in which they were not checked.

Skills

The fifth grade course is designed to develop many skills. A number of these are related to methods of inquiry. Some of the geographic skills were introduced in earlier courses and are reviewed and developed more intensively in grade five. They are also taught again at later levels in the curriculum.

The chart showing the sequential development of skills in this course is presented on pages 18 to 37 of this guide. It should be noted that some of these skills are not listed as objectives in more than one unit during the year (e.g., takes notes on reading; uses almanacs). Later units give pupils opportunities to practice and improve the skills. Teachers may find that they should work intensively on each skill in a number of units. If so, they should list it as an objective of the later teaching units.

Some of the skills objectives should be taught in all of the units for which they are listed. These are the thinking skills related to inquiry (e.g., sets up hypotheses, classifies data, applies previously-learned concepts, and tests hypotheses against data). Moreover, some of the geographic skills should be emphasized in each unit in order to teach pupils to use them effectively and to develop the habit of using them.

Some of the other skills are listed for more than one unit, but the teacher may decide to postpone teaching the skill in the first unit in which it is listed. Or she may think it unnecessary to teach it to all children in the next unit. However, she may still wish to work with a small group of children on the skill in this unit.

the background papers. Background Paper #1 analyzes in more detail the Center's point of view about inquiry as a teaching strategy and what inquiry involves. Background Paper #10 examines learning theory in relation to the use of inquiry Background papers on the individual disciplines focus upon inquiry methods and techniques used in those disciplines, not upon inquiry as a teaching strategy. However, they discuss inquiry techniques which might be taught to pupils in some of the courses.

The fifth grade course emphasizes a teaching strategy which encourages children to find out things for themselves rather than one which emphasizes the absorption of generalizations presented ready-made by the teacher. Children are asked to make guesses or set up hypotheses. They undoubtedly arrive at hypotheses by drawing upon previously-learned concepts and generalizations. They decide that some ideas they have learned in the past might help them make sense out of this new situation. They cannot be sure, but they think that this might be so. Inquiry also involves gathering data, testing their hypotheses, and generalizing from their findings.

The Center's staff does not believe, nor does this course reflect a belief, that all learning must be developed by this type of teaching strategy. There is also a place at times for children to find out what others think about certain kinds of data. They may do so by listening to a guest speaker, by seeing films, or by reading books. Such activities help children compare sources of information and provide them with opportunities to evaluate sources. These activities provide children with help in understanding different points of view or how people in other cultures may perceive things. Some of the stories give children a chance to identify with people in the story and so to understand their feelings.

The materials which children read give them concrete data from which they can generalize about cultural diversity, about cultural use of the environment, about facts affecting changing use of the environment, etc. The teacher should not tell children the generalizations, even when she may provide the raw data from which they can generalize.

There are many occasions in the units when children view pictures and are asked to draw inferences about things in these pictures. Questions in the guides should help them to do so. Moreover, pupils are asked frequently to set up hypotheses on the basis of their study of a map or of several map patterns of the same area. They can then check their hypotheses against other maps, reading materials, and pictorial materials.

Teachers should encourage pupils' guesses as being as worthwhile at some stages of thinking as statements which present a commentary on facts seen in pictures or found in written or visual materials. At other times, children should be asked to listen or look for things which can be used to test these guesses or hypotheses. Even at this stage, however, children should be rewarded for coming up with new ideas about possible hypotheses or for asking relevant questions which have not been raised earlier. Whether or not children will learn to ask questions, set up hypotheses, and generalize for themselves, depends in part upon whether or not such behavior

Goals Related to Concepts and Generalizations

The Center has chosen to identify important concepts and generalizations from the various social sciences and has tried to provide for a sequential development of them in the K-12 curriculum. The course in grade five is built primarily around the concepts of geography. However, it also draws upon concepts from the fields of anthropology and economics. The staff's point of view about structure in social science disciplines and the place of structure in the social studies program is presented in background papers #'s 1 and 2 . Teachers should read the background paper on geography for one possible structure for the field of geography.

It is important to remember that the culture concept from anthropology has been used to tie the entire curriculum together. The geographer uses this concept as he examines culture areas and the cultural use of the environment. Data on the details of some of the cultures studied in this course are not important except as they help develop an understanding of cultural diversity and universals, of culture change, and of the cultural use of the environment. Or some details may be included to help develop an appreciation of the cultural contributions of other peoples. The many details about these cultures or about how a particular place was used in different periods are included only because they are needed to teach certain concepts, generalizations, skills, and sttitudes which are the important goals of the program.

The Rationale for the Number of Objectives

These resource units differ from many units in part because of the large number of generalizations and skills to be taught. The teacher should remember that many of these generalizations and skills are found in a number of the units in the fifth grade course. Moreover, many are reviewed from earlier grades and most will be taught again through different content in later grades. This means that it is not necessary or wise to spend too much time clinching a single generalization in any one unit. Rather, children should generalize and hold these generalizations as tentative--as hypotheses to be tested more fully as they study other units. At the end of the course they can generalize more fully about the cultural use of the environment, factors bringing about change in the use of the environment, factors influencing precipitation and rainfall, etc.

Because of this reinforcement and further development of concepts and generalizations, it is important for the teacher to read through the objectives of all of the units before she begins the course. It would be wise, also, to examine the objectives of earlier courses. The charts on goals, which are found at the end of this guide, are keyed to show which ones were taught in earlier courses.

TEACHING STRATEGIES

For a more complete discussion of inquiry approaches in teaching, the teacher should read a number of peoples, each with a different culture, use the same land. No attempt is made to cover all or any great part of the total land areas of the world; rather, a few topics are studied intensively.

The main theme of the course is that man uses his physical environment in terms of his cultural perceptions, values, and level of technology. The course centers on selected sequent occupance case studies showing how man has dealt with his environment over time. Pupils begin their study of each general area of the world (the United States, Canada, Latin America) by examining and comparing a series of map patterns and working out a system of regions according to selected criteria. The pupils focus upon a handful of case studies rather than a detailed study of each region.

Each case study is chosen with two purposes in mind: (1) It can be used to teach pupils more about the region within which it is located, and (2) It illustrates clearly one or more factors which bring about changing use of the land. For example, the case study on Phoenix shows changes resulting from technological developments. The study of the Red River Valley shows changes in crops grown in terms of changing markets. The study of Birmingham shows changes resulting from the discovery of or new perceptions of mineral resources. A more detailed examination of why each case study was chosen can be found in the general outline of the course below.

THE GENERAL OUTLINE OF THE COURSE

This course includes the following parts and units:

Part One -- The United States

Unit 1 -- The United States: An Overview

This unit provides an overview of patterns of the United States. The unit helps pupils learn more about the geographer, his purposes and techniques. They use familiar surroundings to learn what is meant by a region and how different criteria can be used in regionalization. Pupils then work in groups to set up criteria and regionalize the United States. They compare their system of regions with those of several geographers. Pupils are asked to consider the different systems of regionalization as they study different parts of the country in more detail.

The unit reviews many concepts, generalizations, and skills learned in earlier grades, but it also provides techniques for teaching them if pupils have not come through the earlier course. Much attention is given to developing map reading skills and having pupils draw inferences from a comparison of different map patterns.

The order of the other units on the United States should be determined by where pupils live. They should begin with the unit on their own region.

is discouraged or encouraged by teachers. However, the teacher should not always say "yes" or "that's right" or "good" when a child presents an idea which the teacher thinks good. Rather, the teacher may wish to suggest that this is a new or an interesting idea and ask what ideas other children have. Then children can test different ideas. Teachers can reward or encourage the kinds of behavior desired in many ways other than by saying that the child has come up with a "correct" answer.

At times children may fail to limit generalizations sufficiently or may arrive at faulty generalizations which cannot be supported by present data and knowledge in the social sciences. If so, the teacher should not feel obliged to correct children immediately. Rather she should have pupils think of these generalizations as possible hypotheses to be tested later. Indeed, at times it is beneficial for children to over-generalize and later discover that they must modify their generalizations. Thus if they have over-generalized about factors affecting settlement patterns or temperature in early units, they may have to modify their generalizations when they study later units. This experience should help them learn the need to hold generalizations tentatively.

When children arrive at generalizations which are obviously contradicted by data, the teacher needs to consider two questions. First, do later parts of this unit or later units during the year provide material to help them test these generalizations so that children should be permitted to think of them as tentative generalizations or hypotheses until then? Second, do later courses in the curriculum provide material to help them test and limit generalizations? For example, will units in grade six help them limit a generalization which they have arrived at about the relationship of transportation to production?

If the answer to either question is "yes," it may be wise to let pupils hold these generalization tentatively but to remind them they should think of them as hypotheses to be tested in later units. This is probably the procedure to use if the generalization represents an over-generalization which does not take into account some of the more sophisticated limitations which a social scientist or even an older child might place upon it.

On the other hand, suppose the answer to both questions is "no." Or suppose that the generalizations is not just too broad but is obviously contradicted by data which children have already come across or which could be presented to them in an understandable form within the unit being studied. The teacher should then spend more time helping children test their generalization at this time. Rather than merely telling children that their generalization is wrong or needs to be limited, the teacher might confront children with data. For example, she could read excerpts from books, tell stories, show pictures or films or merely relate certain facts. This data should be such as to lead children to modify their generalization or arrive at a better generalization without the teacher telling them what is wrong.

THE FOCUS OF THE FIFTH GRADE COURSE

The fifth grade course shifts from the study of "Communities Around the World" to the study of how

Unit 2 -- The Midwest

This unit is divided into three sub-units: two sequent occupance case studies, followed by a look at the region as a whole. Pupils should begin with the first sub-unit on the Twin Cities. The sub-unit on the Red River Valley is optional; it has been developed primarily for schools in the Upper Midwest region. The class should be sure to include some study of the third sub-unit on the region as a whole.

Sub-unit one -- Case Study on Twin Cities

Pupils look at the Twin City area when Indians were the chief inhabitants, in the days of the earliest white settlements, in the lumber and flour milling era, and today. The case study depicts one city which grew up around a water power site and another which developed at what was then the head of river navigation for steamers. The case study also illustrates changing use of the environment as a result of a number of factors such as differences in Indian and white men's culture, scientific and technological changes (in types of transportation, in the development of new kinds of wheat varieties, in the development of new kinds of milling techniques, etc.), the exhaustion of a specific resource (lumber), and the development of new ideas for industry by men in the area.

Sub-unit two -- Case Study on the Red River Valley

Pupils look at the Red River Valley in four different periods: when it was occupied by Indians, in the days of the early fur trade, in the days of bonanza wheat farming, and today. The case study illustrates changing use of the environment as a result of such factors as habitation by different cultures (Indians and whites), scientific and technological changes (in types of transportation, seed development, development of farm machinery), depletion of soil fertility by farming practices, and the need to adjust crops to changing prices on the new world grain markets.

Sub-unit three -- The Region of the Middle West

Although the earlier case studies have helped pupils learn something about the relationship of the Twin Cities and the Red River Valley to the Midwest as a whole, as well as to the nation and other countries, this sub-unit looks more closely at the chief characteristics of the entire mid-west region and raises the question: Should the Upper Midwest be included in the same region as the rest of this area?

Unit 3 -- The Northeast

This unit is divided into two major parts, both included in the same resource unit. The first and longer part provides a case study of sequent occupance in New York City. Pupils look at how the early Indians lived in the area, at the early Dutch, settlement with its fur-trading and poltroon land-owning system, at New York in the late 18th century, at the city in the middle part of the 19th century, and at New York today. The unit illustrates the development of an important port city at good natural site. It also illustrates changing use of the environment in terms of a changing situation (in part because of the development of a canal and because of the growth of population in the United States). The unit helps children understand why certain kinds of businesses tend to locate in certain places. It also introduces children to a number of urban problems which have developed in large cities in this country.

Following the study of New York City, pupils turn to the wider region of the Northeast. They examine the chief characteristics which make this area different from other regions.

Unit 4 -- The South

Unit 4 is divided into two parts, both included in the same resource unit. The first and major part is a case study of sequent occupance in Birmingham. Pupils look at the area in 1815 when it was occupied by a few Indians and a few white farmers. They look at it next in 1872 just after the town of Birmingham had been founded, and they look at it again today. This case study illustrates changing use of the area in terms of different perceptions of natural resources (in this case iron), in terms of scientific and technological developments such as railroad and river development, new processes for making coke and steel, and discoveries which made possible the use of former waste products from the processes used in making coke and steel.

In the last part of this unit, pupils turn to the wider region of the South. They note different characteristics in different parts of the South and try to decide what criteria are used to set the South off from other regions in the country.

Unit 5 -- The West

This unit is divided into four parts: Phoenix and the Intermountain West, Los Angeles and the Pacific Southwest, Seattle and the Pacific Northwest, and The West as a Region. The teacher and class should study one of the case studies and then move on to the West as a Region. Their choice of a case study should depend upon several factors. If pupils live in one of the sub-regions, they should probably study it. If not, it is probably wise to study Phoenix rather than one of the other two; the class has already studied one large port city, and Phoenix illustrates certain things which pupils have not studied earlier. Whichever case study is chosen, pupils will divide into groups to study the other sub-regions in less depth when they look at the region as a whole.

The sequent occupance case study on Phoenix calls for study of the Indian civilization which was built upon irrigation in the desert region. Pupils then look at how the early white men built a hay camp there for a nearby army post, how the town of Phoenix was developed in the 1860's and 1870's, what Phoenix was like in the 1940's after the building of a number of large dams, and what Phoenix is like today. The developments illustrate the importance of irrigation and the development of new techniques to prevent the alkalization of the soil as a result of irrigation, the effects of a new invention (air conditioning), and the results of a changing situation as a result of rising living levels in other parts of the country. Following the study of Phoenix, the sub-unit turns to the hinterland for which Phoenix serves as a center.

In the sequent occupance study of Los Angeles, pupils look at the Spanish settlement in 1800, at the American frontier town of 1850, after gold had been discovered near San Francisco, at what happened to the city by the period 1910-1914, and at Los Angeles today. The case study illustrates the use of the land by different cultures (Indians, Spanish, and Americans). It illustrates the development of a port city as the result of a man-made harbor and the development of railroad routes to the city. It also illustrates change as a result of such factors as the development of huge water diversion projects, a changing situation nearby (in the gold fields) which meant an increased demand for food products, the effects of the discovery of oil in the city, and the development of industries which were aided by the type of climate found in the region. The case study also illustrates some of the growing urban problems in this country, such as smog and traffic congestion.

Following the study of Los Angeles, the unit turns to a study of the wider Southwest Pacific coastal region. Pupils study the characteristics of this region and notice differences within it.

Sub-unit three begins with a sequent-occupance study of Seattle. The same kind of pattern is followed as in other case studies. Pupils look at how the Indians used the area, how the first settlers used the area, how the area was developed into a great lumber-producing area as the result of a changed situation in terms of railroad transportation and the decline of forest resources in other areas, how the area was affected by the gold rush to Alaska, and how it was affected by war. This case study illustrates again the development of an important port city where a good natural harbor has been improved and has been tied to an extensive system of land transportation.

Following the study of one of these case studies, pupils turn to a brief sub-unit on the West as a Whole, including the great plains area. They try to identify the difference among the different sub-regions of the west as well as the characteristics which set the West apart as a larger region from other regions in the country.

Part Two -- Canada

Part two is developed within one resource unit. The approach differs somewhat from that used in the study of the United States. Pupils begin by obtaining an overview of patterns of Canada and developing a system of regionalization for the country. They then work in groups to prepare illustrated studies of a series of important towns and cities on a traverse across southern Canada from west to east. The study of these towns helps gives pupils a little more understanding of the regions within which they are found. Pupils look first at the city today and then identify factors which helped bring about the present development.

During the last part of this unit, individuals and groups of pupils present the results of their research on a series of case studies of other towns or cities. These case studies are all chosen to illustrate the effects of some important discovery, technological development, or other cultural development. Each case study deals with a development in an area which was only sparsely populated or almost unused until relatively recently. These case studies illustrate in a dramatic way the fact that man uses his physical environment in terms of his cultural values, perceptions, and level of technology.

Part Three -- Latin America

One resource unit provides an overview of patterns of Latin America and illustrates how the area can be regionalized on the basis of different criteria than those used in earlier parts. Pupils then study a series of case studies on Buenos Aires, Manaus, Sao Paulo, Chile, and Cuzco. Or the teacher may decide to focus upon only two of these. Each region is chosen so as to illustrate a different population composition, as well as other kinds of differences. There are separate sub-units on each of these case studies. At the end of the course, pupils spend some time looking once more at Latin America as a whole and generalizing on the basis of the entire year's course.

THE PLACE OF THE FIFTH GRADE COURSE IN THE OVERALL CURRICULUM

It is important for teachers to understand how this course fits into the rest of the Center's curricular framework. The kindergarten program is designed to acquaint children with the general idea of varied peoples in the world and with simple geographic concepts and skills. Children will have studied their own neighborhood, learned something about directions and distances, made simple maps and learned to use simple globes and maps. They will have found out that communities and countries are dependent upon each other for many goods and resources. They will also have been introduced to the idea of change in the environment which results both from natural forces and from man's activities.

It seems appropriate to have children begin their study of culture by focusing upon only one institution--an institution which is close to their lives. The two year sequence of "Families Around the World" does introduce several other institutions in a simple way as children focus upon the family. Children will notice differences in education and to some extent in religion. They will be introduced to simple economic concepts such as specialization and economic interdependence. However, they will wait to study other institutions in greater depth until grades three and four. The two-year sequence also develops site concepts for each of the societies studied, reviews geographic skills learned in the kindergarten and develops new skills. By showing change in the different cultures studied or in the area studied, the units help teach the idea that man uses his physical environment in terms of his cultural values, perceptions, and level of technology.

study of the Middle East. This area study draws heavily upon the field of geography. If pupils do not study this area in the eighth grade course, they turn to it at the end of the ninth grade. In the ninth grade, pupils also study a unit on Poverty in the United States. This unit includes a treatment of depressed areas in which resources have been exhausted or the economy has been depressed by competition from resources or new products produced elsewhere.

Treatment of geography in the tenth grade is only incidental, but there is heavy emphasis upon geography once more at the eleventh grade level. The area studies in this course treat the geography of Western Europe, the Soviet Union, China, and India. Pupils are asked to apply concepts and generalizations learned earlier, and the course develops new concepts and generalizations not introduced in previous courses. Much attention is given to reviewing and developing geographic skills.

At the twelfth grade level, geography is included in several units. There is considerable emphasis upon geography in the area study on Africa South of the Sahara. Pupils must use geographic concepts, generalizations and skills as they study the unit on Underdeveloped Countries. Moreover, they are introduced to some geographical material as they study the case study on Viet Nam in the unit on War and Peace.

In addition to developing many geographic concepts, generalizations, and skills, the curricular program thus provides study of important areas of the world. The course does not include a study of Australia, but most other areas are included in one of the courses.

THE FORMAT OF THE RESOURCE UNITS

The main part of each resource unit is set up in a double-page format to help teachers see the relationships among objectives, content, teaching procedures, and materials of instruction. The objectives are found in the first column on the left-hand page. This column answers the questions: Why should we use this procedure or teach this content? What should be the focus of the procedure? The second column on the left-hand page presents an outline of content. This column answers the question: What topics should we teach? The first column on the right-hand page includes suggested teaching procedures. This column answers the question: How can we teach these objectives and this content? The final column on materials of instruction answers the question: With what materials can we teach these objectives and this content?

A key is used in the objectives column to make the type of objective stand out clearly. Generalizations are preceded by a G and are in plain type. Skills are preceded by an S and are underlined. Attitudinal behaviors are preceded by an A and are in capital letters.

If no objective is found in the left-hand column for a particular procedure, the teacher should look at the last objective(s) listed in the column for a single procedure. An objective is not repeated until a different objective intervenes.

It should be noted that any one teaching procedure may help develop several generalizations, one or more

Grade three uses the theme of "Communities Around the World" to introduce children in more detail to social and political institutions. Again some economic concepts are developed, but the major focus upon economic institutions does not come until grade four.

The fourth grade course uses the same theme of "Communities Around the World" to introduce contrasting economic systems. Children will spend a large portion of their time finding out in simple terms how our own economic system operates. However, they will discover that in some societies the government plays a much greater role and that in some societies the traditional reciprocal relationships among people are more important than a market. They will see how the total way of life, including cultural values, affects economic systems.

In each of these grade levels, institutions are added to a study of other institutions which pupils have examined earlier. That is, as children look at the Manus or Paris community in grade three, they will also notice some things about the family life in these communities. As children look at economic life in the village of India in grade four, they will find out much about the family life and the social and political life in an Indian village. In this fashion, children study more institutions in each grade level until they are able to look at total cultures without too much confusion.

In both the third and fourth grade courses, children learn many new geographic concepts, generalizations, and skills and review old ones.

Since so much attention has been given earlier to geographic concepts, generalizations, and skills, the teacher at the fifth grade level needs to become acquainted with the earlier courses. If children have come through the earlier courses, the teacher should be able to reduce considerably the amount of time spent on the overview and upon some of the activities in other units at this grade level. If pupils have come through the first grade course, the teacher will probably wish to omit the study of Cuzco in the Latin American unit.

If children have not studied the earlier courses in the Center's curriculum, they probably cannot study all of the units outlined for this course. Much more time will need to be spent on the Overview of the United States, which calls for review of many earlier skills and concepts. If time must be spent in initial teaching of these skills and concepts, the unit will proceed much more slowly than otherwise.

The fifth grade is only one course in a sequence designed to teach many geographic concepts and skills. In grade six children study total cultures, culture contact, and ways in which people take their culture with them to new areas. This is done through the vehicle of an introductory course in American history. The course helps reinforce the idea that man uses his physical environment in terms of his cultural values, perceptions, and level of technology.

The treatment of geography in grade seven and eight is only incidental except in non-election years. In such years, the eighth grade course includes an area skills, and one or more attitudes. Indeed, the most useful procedures are frequently those which help achieve several types of objectives.

By knowing what generalization(s) are listed for a particular procedure, the teacher can direct her handling of the procedure to appropriate ends. As stated earlier, however, she should not feel that children should learn a generalization as the result of this one procedure. The procedure should help lead to the development of the generalization but is rarely the only procedure aimed at accomplishing this end, even within the same unit.

If nothing is printed in the content column opposite a particular procedure, the teacher should look at the last content presented for an earlier procedure. It is not repeated for each new procedure.

The materials column does not include complete bibliographic data nor all of the references which might be used. The bibliographic data can be found in the bibliography at the end of the main body of the unit. The bibliography frequently includes other books and materials which may be used in the unit but which are not so necessary as those listed in the body of the unit. Teachers are encouraged to add other materials as they are published or suitable materials which are in their school libraries but which are not listed in the bibliography.

ADAPTING RESOURCE UNITS TO SPECIFIC COURSES

The units provided by the Center are resource units. Naturally, teachers are expected and encouraged to add their own ideas for materials and teaching procedures. These units are intended to suggest possibilities, not to present a cut-and-dried course.

Since these units are resource units, teachers are not expected to use all of the suggested procedures. Indeed, they could not do so in any one class. Rather, they should select and add procedures which are most suitable for each class. They should consider a number of factors as they make this selection.

1. The objectives which they wish to emphasize in the unit.

   Suppose the teacher discovers that children need much more help on certain map-reading skills. She may wish to add some objectives which are not included in the resource unit. On the other hand, suppose she discovers that children have developed considerable ability to use a specific map-reading skill. She may then wish to omit this skill as an objective or at least merely review its use rather than using all of the activities designed to teach it.

2. The general ability level of the class.

   For example, in a class of largely low ability children the teacher may wish to spend more time on some of the activities which call for making concrete items, manipulating things, or drawing.

3. The differing abilities and interests of class members.

This criterion is particularly important in selecting individual and small group activities.

4. Previous experiences of children.

The selection of objectives, content, procedures, and materials will depend in part upon: (a) previous experiences outside of school, such as trips, visits to museums, where children have lived before coming to the community, socio-economic background of children, etc.; (b) earlier school experiences, including whether or not children have come through earlier courses in the Center's curriculum. Much more attention will have to be paid to developing some of the geographic skills and concepts, for example, if children have not had the earlier courses in the Center's curriculum.

5. The rest of the school curriculum, both in social studies and in other fields.

The teacher will need to consider questions such as the following: What are children learning in their science and mathematics units which might help them in social studies? For example, are they learning anything about maps in one of the new math programs? Does any of the work in science help them understand globalism, climate or landforms, including geologic changes?

6. Materials available for the course.

Some procedures will have to be omitted if needed materials are not available or if other materials cannot be substituted. (However, the teacher can attempt to obtain such materials for another year.)

As teachers adapt and add to units, they should keep in mind certain things about how the course has been developed. First, there is a flow to each unit. Certain things are placed first and other things later because of the need to develop certain concepts or skills or present certain data or skills before other ideas or skills are presented. Before the order of procedures or content is shifted, the teacher needs to analyze the concepts, data, and skills needed to teach each procedure in order to decide whether the shift is wise, or, if it is made, what else needs to be shifted in order to provide the background for carrying out the procedure. Whatever the teacher does, she should develop a logical flow. A jumbled order which has no logical progression may interfere with pupils' organization and development of ideas.

As a teacher shifts activities around, she should also remember that each procedure is written to accomplish certain objectives. If an introductory activity is shifted to a later point in a unit, it probably needs modifying to provide for greater analysis than is called for in a procedure designed to explore children's knowledge, skills, and attitudes, arouse their interest, or develop an overview of the unit. Use of a film in the early stages of a unit will differ from its use in later stages.

It would be possible for the teacher to shift the order of units as well as to modify each resource unit. This might be done with the units following the introductory one. Again, however, the teacher will have to make adjustments if the order is shifted, since the units as now written draw upon concepts, generalizations and skills developed in the earlier units.

THE PREPARATION OF THESE MATERIALS

The Curriculum Center at the University of Minnesota had as its major goal the development and try-out of a new curricular framework for grades K-12. The basic assumptions of the staff and the criteria for selecting topics are discussed in the Center's Background Paper #1. A tentative curricular framework was used in developing a series of resource units and sample pupil materials at various levels where they were needed. No attempt was made to develop a complete set of materials for children. Rather, the aim was to try out the curriculum, using as many materials available from other sources as possible, and supplementing these materials with a few developed by the Center only where they were needed in order to teach the units. At some further date, members of the staff may work with publishers and audio-visual producers to develop more complete sets of materials. However, tryout of these materials has shown that the fifth grade course can be taught with the materials currently available.

The resource units and materials for children were developed by a number of people. Background papers for use by those preparing the units were developed by Frederic Steinhauser, Professor of Geography in the General College, at the University of Minnesota, Edwin Groenhoff, then of the geography department at Mankato State College in Minnesota, and Gerhard Haukebo of Moorhead State College, Minnesota. Drafts of units for preliminary tryout were developed by Lester Brown of the St. Paul Public Schools, Professor William E. Gardner of the University of Minnesota, Edwin Groenhoff of Mankato State College, Rosemarie Kroening of Macalester College, Corine Norberg, a graduate student at the University of Minnesota in elementary education, and Gerald Pitzl, a teaching assistant at the University at that time.

The course was tried out under the general supervision of Professor Everett Keach by one or more teachers in the following public schools of Minnesota: Robbinsdale, Richfield, Edina, and Minnetonka. The units were then revised by Professor Edith West, who also developed additional readings for some of the units.

The Center's staff wishes to thank all of the teachers and visiting staff members who helped develop materials. It owes special thanks to the following teachers who were involved in the initial tryout of the materials and who provided many valuable suggestions for changes and additions: Miss Hope Walfrid of the Minnetonka Public Schools, Mr. Rosamer Holl and Miss Karen Stensrud of the Richfield Public Schools, Mrs. Marlene Angevine and Mrs. Marilyn Sako of the Robbinsdale Public Schools and Mr. James Fishbaugher of the Edina Public Schools. The Center's staff is indeed grateful to all of these people who served as Project Associates during the initial tryout period. The Center welcomes additional suggestions from people who use the units in the future.

SEQUENTIAL DEVELOPMENT OF ATTITUDES

ATTITUDES	Overview of U.S.	Twin Cities	Red River	Mid-West	New York	Birmingham	Phoenix	Los Angeles
*1. Is curious about social data.	X	X	X		X		X	
2. Searches for evidence to disprove hypotheses, not just to prove them.	X							
*3. Respects evidence even when it contradicts preconceptions.	X							
*4. Is sceptical of the finality of knowledge; considers generalizations and theories as tentative, always subject to change in the light of new evidence.	X							
*5. Evaluates information and sources of information before accepting evidence and generalizations.		X						
* 6. Is sceptical of theories of single causation in the social science.		X						
* 7. Believes that people of different interests, abilities, and background can contribute to American society.		X						
* 8. Appreciates and respects cultural contributions of other peoples.								

SEQUENTIAL DEVELOPMENT OF SKILLS

	Overview of U. S.	Twin Cities	Red River	Mid-West	New York	Birm-ingham	Phoenix	Los Angeles
I. ATTACKS PROBLEMS IN A RATIONAL MANNER.								
* 1. Sets up hypotheses.	X	X	X	X	X	X	X	X
2. Figures out ways of testing hypotheses.	X	X					X	
II. LOCATES INFORMATION EFFICIENTLY.								
* 1. Uses the table of contents in a book.		X			X			
* 2. Uses the index in a book.		X			X			
3. Uses the card catalog in the library.					X			
4. Uses the vertical file in the library.					X			
5. Uses appropriate reference works to locate different types of information.							X	

SEQUENTIAL DEVELOPMENT OF ATTITUDES

ATTITUDES	Seattle	West as a Whole	Canada	Lat. Am. as a Whole	Sao Palo	Buenos Aires	Manus	Chile	Cuzco
* 1. Is curious about social data.				X			X		
2. Searches for evidence to disprove hypotheses, not just to prove them.									
* 3. Respects evidence even when it contradicts preconceptions.									
* 4. Is sceptical of the finality of knowledge; considers generalizations and theories as tentative, always subject to change in the light of new evidence.				X		X	X		
* 5. Evaluates information and sources of information before accepting evidence and generalizations.									
* 6. Is sceptical of theories of single causation in the social science.									
* 7. Believes that people of different interests, abilities, and background can contribute to American society.									
* 8. Appreciates and respects cultural contributions of other people.							X		

SEQUENTIAL DEVELOPMENT OF SKILLS

	Seattle	West as a Whole	Canada	Lat. Am. as a Whole	Sao Palo	Buenos Aires	Manus	Chile	Cuzco
I. ATTACKS PROBLEMS IN A RATIONAL MANNER.									
*1. Sets up hypotheses.	X			X	X	X	X	X	X
2. Figures out ways of testing hypotheses.									
II. LOCATES INFORMATION EFFICIENTLY.									
*1. Uses the table of contents in a book.									
*2. Uses the index in a book.									
3. Uses the card catalog in the library.									
4. Uses the vertical file in the library.									
5. Uses appropriate reference works to locate different types of information.									

	Overview of U.S.	Twin Cities	Red River	Mid-West	New York	Birm-ingham	Phoenix	Los Angeles
a. Uses different types of atlases.					X			
b. Uses almanacs.					X			
c. Uses encyclopedias.						X		
III. GATHERS INFORMATION EFFECTIVELY.								
1. Reads rapidly for main ideas.								
2. Takes notes on reading, using note cards.					X			
* 3. Gains information by studying films.								
* 4. Gains information by studying pictures.	X	X	X			X		X
* a. Draws inferences from pictures.								
* 5. Gains information by using models.	X						X	
6. Gains information by conducting or observing simple experiments.	X		X				X	

	Seattle	West as a Whole	Canada	Lat. Am. as a Whole	Sao Palo	Buenos Aires	Manus	Chile	Cuzco
a. Uses different types of atlases.									
b. Uses almanacs.									
c. Uses encyclopedias.									
III. GATHERS INFORMATION EFFECTIVELY.									
1. Reads rapidly for main ideas.				X					
2. Takes notes on reading, using note cards.									
*3. Gains information by studying films.				X			X	X	
*4. Gains information by studying pictures.	X						X	X	
*a. Draws inferences from pictures.				X	X	X		X	
*5. Gains information by using models.									
6. Gains information by conducting or observing simple experiments.									

	Overview of U.S.	Twin Cities	Red River	Mid-West	New York	Birm-ingham	Phoenix	Los Angeles
* 7. Gains information by observing the world around him.	X	X						
8. Gains information by making a survey.	X							
a. Increases the accuracy of his observations through the use of devices to promote reliability such as a questionnaire.	X							
* 9. Gains information by studying diagrams.					X			
* 10. Interprets graphs.							X	
+ a. Interprets pictographs, bar graphs, line graphs and circle (pie) graphs.	X	Line Bar		Pie Graphs				
11. Makes graphs to present information.			X					
12. Interprets tables.								
a. Draws inferences from tables and graphs.			X				Tables	
13. Uses scatter diagrams to test hypotheses.	X							

	Seattle	West as a Whole	Canada	Lat. Am. as a Whole	Sao Palo	Buenos Aires	Manus	Chile	Cuzco
*7. Gains information by observing the world around him.									
8. Gains information by making a survey.									
a. Increases the accuracy of his observations through the use of devices to promote reliability such as a questionnaire.									
*9. Gains information by studying diagrams.									
*10. Interprets graphs.	X								X
+ a. Interprets pictographs, bar graphs, line graphs and circle (pie)graphs.				Line				Pie Graphs	
11. Makes graphs to present information.									
12. Interprets tables.	X			X		X			
a. Draws inferences from tables and graphs.									Tables
13. Uses scatter diagrams to test hypotheses.									

	Overview of U. S.	Twin Cities	Red River	Mid-West	New York	Birm-ingham	Phoenix	Los Angeles
14. Gains information by listening.		X	X					
IV. USES EFFECTIVE GEOGRAPHICAL SKILLS.								
*1. Has a sense of distance and area.	X				X		X	X
*a. Compares distances.	X				X			X
*b. Compares areas, with known areas.	X				X		X	
*2. Has a sense of direction.	X							
*a. Knows cardinal directions.	X							
*b. Knows intermediate directions.	X							
*3. Interprets maps.	X	X	X	X	X	X	X	X
*a. Interprets map symbols.	X					X	X	
*1) Interprets map symbols (color layers) in terms of map legend.	X							

	Seattle	West as a Whole	Canada	Lat. Am. as a Whole	Sao Palo	Buenos Aires	Manus	Chile	Cuzco
14. Gains information by listening.									
IV. USES EFFECTIVE GEOGRAPHICAL SKILLS.									
*1. Has a sense of distance and area.	X						X	X	
* a. Compares distances.	X							X	
* b. Compares areas, with known areas.							X	X	
* 2.Has a sense of direction.									
* a. Knows cardinal directions.									
* b. Knows intermediate directions.									
*3. Interprets maps.	X	X	X	X	X	X	X	X	X
*a. Interprets map symbols.								X	
*1) Interprets map symbols (color layers) in terms of map legend.									

	Overview of U.S.	Twin Cities	Red River	Mid-West	New York	Birm-ingham	Phoenix	Los Angeles
*2) Interprets map symbols (color gradients and shading).	X							
3) Interprets map symbols (contour lines).	X		X					
4) Interprets map symbols (isometric lines) in terms of map legend.	X							
5) Interprets map symbols in terms of the legend.		X	X	X	X			X
*b) Tells directions from maps and globes.	X		X				X	
*1) Knows that North Pole is always to the north and South Pole always to the south.	X							
2) Uses meridians and parallels to identify directions on maps.	X							
+3) Orients maps.							X	

	Seattle	West as a Whole	Canada	Lat. Am. as a Whole	Sao Palo	Buenos Aires	Manus	Chile	Cuzco
*2) Interprets map symbols (color gradients and shading).									
3) Interprets map symbols (contour lines).	X								
4) Interprets map symbols (isometric lines) in terms of map legend.									
5) Interprets map symbols in terms of the legend.	X				X	X	X		X
*b) Tells directions from maps and globes.	X								
*1) Knows that North Pole is always to the north and South Pole always to the south.									
2) Uses meridians and parallels to identify directions on maps.									
+3) Orient mpas.									

	Overview of U.S.	Twin Cities	Red River	Mid-West	New York	Birm-ingham	Phoenix	Los Angeles
*(a) Orients large scale maps in their proper place on small scale maps.	X							
*c) Uses map scale to estimate distances.	X					X	X	X
d) Uses system of parallels to identify relative distance from equator.	X							
*e) Differentiates between small scale and large scale maps and knows when to use each.	X		X					
f) Identifies distortions on map.	X							
1) Identifies type of map distortion by comparing grid on map with grid on globe.	X							
g) Draws inferences from maps.	X	X		X	X			

	Seattle	West as a Whole	Canada	Lat. Am. as a Whole	Sao Palo	Buenos Aires	Manus	Chile	Cuzco
* (a) Orients large scale maps in their proper place on small scale maps.									
*c) Uses map scale to estimate distances.									
d) Uses system of parallels to identify relative distance from equator.									
*e) Differentiates between small scale and large scale maps and knows when to use each.									
f) Identifies distortion on map.									
1) Identifies type of map distortion by comparing grid on map with grid on globe.									
g) Draws inferences from maps.				X					

	Overview of U.S.	Twin Cities	Red River	Mid-West	New York	Birmingham	Phoenix	Los Angeles
1) Draws inferences from maps by applying previously-learned concepts and generalizations.							X	
*2) Draws inferences from a comparison **of different map patterns of the same area.**	X	X	X	X	X	X	X	X
4. Develops a system of regions to fit a particular purpose.	X							
*5. Uses atlas index and global grid to locate places.	X		X			X		
V. HAS A WELL-DEVELOPED SENSE OF TIME.								
*1. Makes and interprets timelines.			X					X
*2. Looks for relationships among events which occur in different places.			X					
VI. EVALUATES INFORMATION AND SOURCES OF INFORMATION.								

	Seattle	West as a Whole	Canada	Lat. Am. as a Whole	Sao Palo	Buenos Aires	Manus	Chile	Cuzco
1) Draws inferences from maps by applying previously-learned concepts and generalizations.	X								
*2) Draws inferences from a comparison of different map patterns of the same area.	X	X		X			X	X	
4. Develops a system of regions to fit a particular purpose.	X			X		X		X	
*5. Uses atlas index and global grid to locate places.	X	X				X		X	X
V. HAS A WELL-DEVELOPED SENSE OF TIME.									
*1. Makes and interprets timelines.									
*2. Looks for relationships among events which occur in different places.									
VI. EVALUATES INFORMATION AND SOURCES OF INFORMATION.									

	Overview of U.S.	Twin Cities	Red River	Mid-West	New York	Birm-ingham	Phoenix	Los Angeles
1. Checks data against own background of facts.								
*2. Checks on the bias and competencey of witnesses and authors.		X	X				X	
* a. Evaluates sources of information in terms of competency of authors.								
3. Identifies types of sources which can be used by the historian and recognizes the limitations of each.		X						
*4. Evaluates sources in terms of completeness of data.		X						
*5. Looks for points of agreement and disagreement among different sources of information.								
VII. ORGANIZES AND ANALYZES DATA AND DRAWS CONCLUSIONS.								
*1. Classifies data.	X						X	
*2. Applies previously-learned concepts and generalizations to new data.	X	X	X	X	X	X	X	X

	Seattle	West as a Whole	Canada	Lat. Am. as a Whole	Sao Palo	Buenos Aires	Manus	Chile	Cuzco
1. Checks data against own background of facts.	X								
*2. Checks on the bias and competency of witnesses and authors.									
*a. Evaluates sources of information in terms of competency of authors.	X								
3. Identifies types of sources which can be used by the historian and recognizes the limitations of each.									
*4. Evaluates sources in terms of completeness of data.									
*5. Looks for points of agreement and disagreement among different sources of information.									X
VII. ORGANIZES AND ANALYZES DATA AND DRAWS CONCLUSIONS.									
*1. Classifies data.									
*2. Applies previously-learned concepts and generalizations. to new data.	X		X	X	X	X	X	X	X

	Overview of U.S.	Twin Cities	Red River	Mid-West	New York	Birmingham	Phoenix	Los Angeles
3. Uses simple statistical device of mean (average) to analyze data but recognizes that it does not reveal range and variation in data.	X							
*4. Tests hypotheses against data.	X	X	X	X	X	X	X	X
*5. Generalizes from data.		X	X		X	X		X
6. Considers alternative courses of action.								
VIII. PRESENTS INFORMATION EFFECTIVELY.								
*1. Presents effective oral reports.					X			
*2. Clarifies his purpose and main ideas.		X						
*3. Organizes his material to fit his theme.		X						
4. Considers his audience.		X						
*5. Uses techniques to clarify ideas and arouse interest.		X						

	Seattle	West as a Whole	Canada	Lat. Am. as a Whole	Sao Palo	Buenos Aires	Manus	Chile	Cuzco
3. Uses simple statistical device of mean (average) to analyze data but recognizes that it does not reveal range and variation in data.									
*4. Tests hypotheses against data.	X		X	X	X	X	X	X	X
*5. Generalizes from data.	X	X		X	X	X		X	
6. Considers alternative courses of action.					X				
VIII. PRESENTS INFORMATION EFFECTIVELY.									
*1. Presents effective oral reports.									
*2. Clarifies his purpose and main ideas.									
*3. Organizes his material to fit his theme.									
4. Considers his audience.									
*5. Uses techniques to clarify ideas and arouse interest.									

	Overview of U. S.	Twin Cities	Red River	Mid-West	New York	Birm-ingham	Phoenix	Los Angeles
IX. WORKS EFFECTIVELY WITH OTHERS.								
* 1. Accepts his share of responsibility for the work of a group.		X						
2. Participates actively without trying to dominate.		X						
* 3. Is able to empathize with others, seeing things through their eyes.		X						

	Seattle	West as a Whole	Texas	Lat. Am. as a Whole	Sao Palo	Buenos Aires	Venez	Chile	Cuzco
IX. WORKS EFFECTIVELY WITH OTHERS.									
*1. Accepts his share of responsibility for the work of a group.									
2. Participates actively without trying to dominate.									
*3. Is able to empathize with others, seeing things through their eyes.									

CONCEPTS	Overview of U.S.	Twin Cities	Red River	Midwest	New York	Birming-ham	Phoenix	Los Angeles
*1. GLOBALISM	X							
*a. Rotation of earth	X							
*b. Inclination of earth	X					X	X	
* c. Revolution of earth around the sun.	X							
*d. Seasons	X	X	X			X	X	X
e. Ocean currents	X				X			X
f. Prevailing winds	X	X			X		X	X
*2. Location	X	X	X	X	X	X	X	X
* a. Position	X	X	X		X	X	X	X
*1) Longitude	X	X	X		X	X	X	X
*2) Latitude	X	X	X		X	X	X	X
a) High latitudes	X							
b) Middle latitudes	X							
c) Low latitudes	X							
*3) Meridians and parallels (global grid)	X	X			X	X	X	X
*b. Situation	X	X	X	X	X	X	X	X
* 1) Distance	X		X		X	X	X	X
* 2) Direction	X		X		X	X	X	X
* 3) Relationships	X	X	X		X	X	X	X
* 4) Change	X	X	X		X	X	X	X
* c. Site	X	X	X	X	X	X	X	X
* 1) Elevation	X	X				X	X	X
* 2) Landforms	X	X	X	X	X	X	X	X
*a) Plain	X	X	X				X	X
*b) Hills	X	X			X	X		
*c) Mountains	X				X	X	X	X
*d) Plateaus	X							
*e) Valley	X	X	X		X	X	X	X
f) Gorge	X							
*g) Mesa	X							
h) Butte	X							
i) River levee		X						

* Introduced in earlier course.

+ Taught in part in earlier course.

CONCEPTS	Seattle	West	Canada	Latin Am.As Whole	Sao Paulo	Buenos Aires	Manaus	Chile	Cuzco
*1. GLOBALISM						X			
* a. Rotation of earth									
* b. Inclination of earth	X					X			
* c. Revolution of earth around the sun									
* d. Seasons	X		X	X			X		X
e. Ocean currents	X	X						X	X
f. Prevailing winds	X	X		X		X		X	X
*2. Location	X			X	X	X	X	X	X
* a. Position	X		X		X	X	X	X	X
*1) Longitude	X				X	X			X
*2) Latitude	X				X	X			X
a) High latitudes			X	X					
b) Middle latitudes				X					
c) Low latitudes				X	X		X		X
* 3) Meridians and parallels (global grid)	X				X	X		X	X
*b. Situation	X	X	X		X	X	X	X	X
*1) Distance	X		X					X	
*2) Direction	X		X					X	
*3) Relationships	X	X	X		X		X	X	X
*4) Change	X	X				X	X	X	
* c. Site	X		X			X		X	
*1) Elevation	X				X		X	X	X
*2) Landforms	X	X	X	X	X	X		X	X
*a) Plains	X	X	X	X		X		X	
*b) Hills	X	X						X	
*c) Mountains	X	X	X	X		X		X	X
*d) Plateaus					X	X			X
*e) Valley		X	X				X	X	X
f) Gorge									
*g) Mesa		X							
h) Butte		X							
i) River leve									

	Overview of U.S.	Twin Cities	Red River	Midwest	New York	Birming-ham	Phoenix	Los Angeles
j) Bluff		X			X			
* k) Marshes			X					
- l) Submerged coastline					X			
* m) Island					X			
* n) Harbor		X			X			X
* o) Cliff								
* 3) Water	X	X	X	X	X	X	X	X
- *a) River	X	X	X		X	X	X	X
*b) Ocean	X				X			X
*c) Lake	X		X	X				
*d) Precipitation	X	X	X	X	X	X	X	X
*e) Drainage	X		X				X	
- f) Evaporation	X						X	X
g) Hydrological cycle	X							
h) Water Falls		X		X				
i) Head of navigation (and fall line)		X			X	X		
*4) **Climate**	X	X	X	X	X	X	X	X
- *a) Temperature	X	X	X		X	X	X	X
*b) Seasonal variation	X	X	X	X	X	X	X	X
*c) Growing season	X	X	X	X	X	X	X	X
- d) **Diurnal range**							X	
*e) Precipitation	X	X	X	X	X	X	X	X
- f) Humidity							X	
g) Wind velocity							X	
h) Continental		X				X		
*5) Soil	X	X	X	X	X	X	X	X
- *a) Types	X	X	X	X	X	X	X	X
- b) Erosion	X					X		
c) Alkalization							X	
d) Water logging							X	
*e) Exhaustion			X			X		
*6) Vegetation	X	X	X	X	X	X	X	X
- *a) Coniferous forests	X	X		X	X	X		
*b) Deciduous forests	X	X		X	X	X		
+c) Tall grasslands	X	Prairie	Prairie					
+d) Short grasslands	X							

	Seattle	West	Canada	Latin Am. As Whole	Sao Paulo	Buenos Aires	Manaus	Chile	Cuzco
j) Bluff									
* k) Marshes						X			
- l) Submerged coastline									
* m) Island	X								
* n) Harbor	X	X	X		X	X			
* o) Cliff					X				
*3) Water	X	X	X		X	X	X	X	X
- * a) River	X	X	X		X	X	X	X	
* b) Ocean	X	X	X	X	X	X	X	X	X
* c) Lake	X		X						
* d) Precipitation	X	X	X	X	X	X	X	X	X
* e) Drainage		X	X						
- f) Evaporation		X							
g) Hydrological cycle									
h) Water Falls	X		X						
i) Head of navigation (and fall line)									
*4) Climate	X	X	X	X	X	X	X	X	X
- * a) Temperature	X	X	X	X	X	X	X	X	X
* b) Seasonal variation	X	X	X	X			X	X	X
* c) Growing season	X	X	X	X			X	X	
- d) Diurnal range		X							
* e) Precipitation	X	X	X	X	X	X	X	X	X
- f) Humidity		X					X	X	
g) Wind velocity									
h) Continental									
*5) Soil	X	X	X		X	X	X	X	X
- * a) Types	X	X	X		X		X	X	X
- b) Erosion									
c) Alkalization									
d) Water logging									
* e) Exhaustion					X				
* 6) Vegetation	X	X	X	X	X	X	X	X	X
- *a) Coniferous forests	X	X	X	X				X	
*b) Deciduous forests		X	X	X				X	
+ c) Tall grasslands				X		X			
+ d) Short grasslands	X	X	X	X		X			X

	Overview of U.S.	Twin Cities	Red River	Midwest	New York	Birming-ham	Phoenix	Los Angeles
*e) Desert	X						X	
*f) Tundra	X							
7) Break in transportation		X			X			
*8) Natural resources	X	X	X	X	X	X	X	X
*3. Diversity-variability	X	X	X	X	X	X	X	X
a. Pattern	X	X	X	X	X	X	X	X
b. Regionalization and region	X	X	X	X	X	X	X	X
*4. Interrelatedness	X	X	X	X	X	X	X	X
a. Areal association	X	X	X	X	X	X	X	X
* b. Trade	X	X	X	X	X	X	X	X
c. Functional regions	X	X	X	X	X		X	X
d. Central place and hinterland		X			X	X	X	X
* e. Interdependence		X	X	X	X	X	X	X
*5. Change	X	X	X	X	X	X	X	X
* a. Physical and biotic	X	X	X	X	X	X	X	X
* b. Man-made	X	X	X	X	X	X	X	X
* 1) Terracing								
2) Tunnels					X			
* 3) Irrigation							X	X
4) Drainage			X					
5) Locks		X	X			X		
6) Dredging		X				X		
7) Dams		X				X	X	X
8) Bridges		X			X			
9) Canals					X			
*10) Construction of land transportation routes	X	X	X	X	X	X	X	X
*6. Cultural use of environment	X	X	X	X	X	X	X	X
a. Political boundaries	X				X			
*b. Population dispersion and density	X	X	X	X	X	X	X	X
c. Population composition					X			X
d. Predominant economy	X					X	X	X
*e. Agricultural types and land use	X	X	X	X	X	X	X	X
1) Single crop farming			X			X		
2) Cash crop farming			X			X	X	X

	Seattle	West	Canada	Latin Am. As Whole	Sao Paulo	Buenos **Aires**	Manaus	Chile	Cuzco
*e) Desert		X		X				X	
*f) Tundra			X						X
7). Break in transportation	X		X		X		X		
*8) Natural resources	X	X	X	X	X	X	X	X	
*3. Diversity-variability	X	X	X	X	X		X	X	X
a. Pattern	X	X	X	X	X			X	X
b. Regionalization and region	X	X	X	X	X			X	X
*4. Interrelatedness	X	X	X	X	X	X	X	X	X
a. Areal association	X	X	X	X	X	X	X	X	X
*b. Trade	X	X	X	X	X	X	X	X	X
c. Functional regions	X		X		X				
d. Central place and hinterland	X		X		X	X	X		
*e. Interdependence	X	X	X	X	X	X	X	X	
*5. Change	X	X	X	X	X	X	X	X	X
*a. Physical and biotic	X		X				X		X
*b. Man-made	X	X	X		X	X	X	X	X
*1) Terracing									X
2) Tunnels			X						
*3) Irrigation	X	X						X	X
4) Drainage									
5) Locks			X						
6) Dredging						X			
7) Dams	X	X							
8) Bridges	X								
9) Canals	X								
*10) Construction of land transportation	X	X	X	X	X	X			
*6. Cultural use of environment	X	X	X	X	X	X	X	X	X
a. Political boundaries			X					X	
*b. Population dispersion and density	X	X	X	X	X	X	X	X	X
c. Population composition			X	X	X	X	X	X	X
d. Predominant economy	X	X	X		X	X	X		
*e. Agricultural types and land use	X	X	X		X	X		X	X
1) Single crop farming									
2) Cash crop farming									

	Overview of U.S.	Twin Cities	Red River	Midwest	New York	Birming-ham	Phoenix	Los Angeles.
3) Diversified farming			X	X		X	X	
*f. Urbanization	X	X	X	X	X	X	X	X
g. Industrial development	X	X	X	X	X	X	X	X
h. Lumbering		X		X		X		X
*i. Fishing			X	X	X			X
*j. Trapping and hunting		X	X		X	X		
*k. Transportation	X	X	X	X	X	X	X	X
*l. Technology (level)		X	X	X	X	X	X	X
*m. Specialization (and division of labor)		X		X	X	X	X	X
n. Diversification		X	X	X	X	X	X	X
*o. Change (see 5b above).		X	X	X	X	X	X	X
*7. CULTURE		X	X	X	X	X	X	X
*a. Diversity		X	X	X	X	X	X	X
*b. Universals					X			
*c. Values and norms		X					X	X
d. Cultural perception		X			X		X	X
*e. Change		X	X			X	X	X
*1) Diffusion			X				X	X
2) Invention		X				X	X	X
*f. Persistence			X					X
g. Sub-culture								
*8. POLITICAL CONCEPTS								
*a. Law					X	X		
*b. Government Services					X	X		
*9. ECONOMIC CONCEPTS								
*a. Barter			X					
*b. Price			X			X	X	X
*c. Supply and demand			X			X	X	X
*d. Market		X	X	X	X	X	X	X
*e. Competition		X	X	X	X	X		
*f. Costs				X	X	X		
*g. Advertising							X	
*h. Capital								
*i. Labor								
*j. Level of living								

	Seattle	West	Canada	Latin Am. As Whole	Sao Paulo	Buenos Aires	Manaus	Chile	Cuzco
3) Diversified farming									
* f. Urbanization	X	X	X		X	X		X	
- g. Industrial development	X	X	X		X	X		X	
h. Lumbering	X	X	X				X	X	
* i. Fishing	X	X	X						
* j. **Trapping and hunting**			X						
* k. Transportation	X	X	X	X		X	X	X	
* l. Technology (level)	X	X	X		X		X	X	
* m. Specialization (and division of labor)	X		X		X		X	X	
n. Diversification	X		X		X		X	X	
*o. Change (see 5b above)	X	X	X		X	X	X	X	
*7. CULTURE	X		X	X	X	X	X	X	X
*a. Diversity	X		X	X	X		X	X	X
*b. Universals									
*c. Values and norms	X				X			X	X
d. Cultural perception	X		X		X	X			X
*e. Change	X		X	X	X	X	X		X
*1) Diffusion	X		X			X	X		
2) Invention	X		X						
*f. Persistence			X	X				X	X
g. Sub-culture									X
*8. POLITICAL CONCEPTS									
*a. Law									
*b. Government Services									X
*9. ECONOMIC CONCEPTS									
*a. Barter									
*b. Price	X		X		X		X	X	
*c. Supply and demand	X		X		X		X	X	
* d. Market	X		X		X		X	X	
* e. Competition			X						
* f. Costs			X				X		
* g. Advertising									
* h. Capital					X		X		
* i. Labor					X		X		
* j. Level of living					X				X

SEQUENTIAL DEVELOPMENT OF GENERALIZATIONS

	Overview of U.S.	Twin Cities	Red River	Mid-west	New York	Birming-ham	Phoen-ix	Los Angeles
*1. Every place has three types of location: position, situation, and site.	X	X	X		X	X	X	X
*a. Things can be located at specific points on the earth's surface, usually designated by an abstract grid and described in terms of latitude and longitude.	X	X	X		X	X	X	X
*b. Places can be located in terms of their situation; situation describes a phenomenon in areal relationship with other phenomena with which it is associated, including distance and direction from such phenomena.	X	X	X		X	X	X	X
*c. Places can be located in terms of site which relates a phenomenon to the detailed physical setting of the area it occupies.	X	X	X		X	X	X	X
*2. Phecmena are distributed unequally over the earth's surface, resulting in great diversity or variability from one place to another. No two places are exactly alike.	X	X		X				

* Introduced in earlier course. + Introduced in part in earlier course

# Taught in earlier course in connection with concept but not stated as an objective.

SEQUENTIAL DEVELOPMENT OF GENERALIZATIONS

	Seattle	West as Whole	Canada	Latin Am. as Whole	Sao Paulo	Buenos Aires	Manaus	Chile	Cuzco
*1. Every place has three types of location: position, situation; and site.	X								
*a. Things can be located at specific points on the earth's surface, usually designated by an abstract grid and described in terms of latitude and longitude.	X				X	X			X
*b. Places can be located in terms of their situation ; situation describes a phenomenon in areal relationship with other phenomena with which it is associated, including distance and direction from such phenomena.	X								
*c. Places can be located in terms of site which relates a phenomenon to the detailed physical setting of the area it occupies.	X							X	
*2. Phenomena are distributed unequally over the earth's surface, resulting in great diversity or variability from one place to another. No two places are exactly alike.		X		X	X		X		

	Overview of U.S.	Twin Cities	Red River	Mid-west	New York	Birming-ham	Phoen-ix	Los Angeles
* a. Unevenly-distributed phenomena form distinctive patterns on the map.	X							
*3. Temperature is affected by such factors as distance from the equator, elevation, distance from warm water bodies, prevailing winds, and physical features which block winds from certain directions.	X	X		X	X	X	X	X
* a. Temperature and seasonal differences are affected in part by distance from the equator; temperature ranges are smaller near the equator than further away from it.	X					X	X	
* b. Temperature is affected in part by elevation; air is cooler at higher elevations than at lower elevations if latitude and distance from the sea are the same.	X							
* c. Places in the interior of continents tend to have greater extremes of temperature than places along the coast.	X	X		X		X		

	Seattle	West as Whole	Canada	Latin Am. as Whole	Sao Paulo	Buenos Aires	Manaus	Chile	Cuzco
*a. Unevenly-distributed phenomena form distinctive patterns on the map.				X	X				
*3. Temperature is affected by such factors as distance from the equator, elevation, distance from warm water bodies, prevailing winds, and physical features which block winds from certain directions.	X		X	X	X	X	X	X	X
*a. Temperature and seasonal differences are affected in part by distance from the equator; temperature ranges are smaller near the equator than further away from it.			X	X	X		X		X
*b. Temperature is affected in part by elevation; air is cooler at higher elevations than at lower elevations if latitude and distance from the sea are the same.			X	X	X				X
*c. Places in the interior of continents tend to have greater extremes of temperature than places along the coast.			X	X	X				

	Overview of U.S.	Twin Cities	Red River	Mid-west	New York	Birming-ham	Phoen-ix	Los Angeles
* 1) The ocean and other large bodies of water do not heat up so rapidly as land nor cool so rapidly as land.	X			X	X			X
* 2) Winds which blow over warm bodies of water (or land areas) carry warm air to nearby land areas.	X			X	X			X
*4. Precipitation is affected by factors such as distance from bodies of warm water, wind direction, temperature, ocean currents, and physical features which force winds to rise.	X	X		X	X	X	X	X
a. Warm air can hold more water than cool air; therefore warm air picks up moisture and the cooling of air leads to precipitation.	X							X
b. Winds which have been warmed and have picked up moisture crossing large bodies of warm water tend to cool as they rise over mountains and so drop their water on the side of the mountain from which they come.	X							X

	Seattle	West as Whole	Canada	Latin Am. as Whole	Sao Paulo	Buenos Aires	Manaus	Chile	Cuzco
*1) The ocean and other large bodies of water do not heat up so rapidly as land nor cool so rapidly as land.			X						
*2) Winds which blow over warm bodies of water (or land areas) carry warm air to nearby land areas.			X						
*4. Precipitation is affected by factors such as distance from bodies of warm water, wind direction, temperature, ocean currents, and physical features which force winds to rise.	X		X	X	X	X	X	X	X
a. Warm air can hold more water than cool air; therefore warm air picks up moisture and the cooling of air leads to precipitation.	X								
b. Winds which have been warmed and have picked up moisture crossing large bodies of warm water tend to cool as they rise over mountains and so drop their water on the side of the mountain from which they come.	X						X		

	Overview of U.S.	Twin Cities	Red River	Mid-west	New York	Birming-ham	Phoen-ix	Los Angeles
c. As winds descend into valleys from mountain ridges, they are warmed and tend to pick up moisture.	X							X
d. Winds which cross cold water currents are cooled and will pick up moisture rather than dropping it as they cross land areas which are warmer than the water.	X							X
5. The amount of moisture needed for vegetation and crops is affected by the time of year when the area receives most of its moisture and by the temperature of an area.	X							
a. The time of year when an area receives its precipitation is important to agriculture. If it comes during the growing season, it makes it easier to grow crops; however, if it comes mainly at the hottest time of the year, more is needed than during cool months to provide an equal amount of moisture.	X							

	Seattle	West as Whole	Canada	Latin Am. as Whole	Sao Paulo	Buenos Aires	Manaus	Chile	Cuzco
c. As winds descend into valleys from mountain ridges, they are warmed and tend to pick up moisture.	X								
d. Winds which cross cold water currents are cooled and will pick up moisture rather than dropping it as they cross land areas which are warmer than the water.								X	
5. The amount of moisture needed for vegetation and crops is affected by the time of year when the area receives most of its moisture and by the temperature of an area						X			
a. The time of year when an area receives its precipitation is important to agriculture. If it comes during the growing season, it makes it easier to grow crops; however, if it comes mainly at the hottest time of the year, more is needed than during cool months to provide an equal amount of moisture.						X			

	Overview of U.S.	Twin Cities	Red River	Mid-west	New York	Birming-ham	Phoen-ix	Los Angeles
b. The land in hot regions dries fast as the warm air picks up moisture; therefore more rain is needed to grow crops in these regions than in regions which are not so hot.	X							
6. The degree to which people are made uncomfortable by hot or cold temperatures is affected by the amount of humidity and by wind velocity.							X	
7. Water is evaporated from the ocean, is carried in clouds by the wind, is dropped on land areas through precipitation, and is then evaporated once more or runs off by way of rivers and underground streams to the oceans.	X							
# a. Rivers flow from higher elevations to lower elevations.	X							
b. If lakes have no outlets, they are likely to develop into salt-water lakes or dry up into salt beds.	X							
# c. Mountains frequently provide sources of water for rivers and so for irrigation.								

	Seattle	West as Whole	Canada	Latin Am. as Whole	Sao Paulo	Buenos Aires	Manaus	Chile	Cuzco
b. The land in hot regions dries fast as the warm air picks up moisture; therefore more rain is needed to grow crops in these regions than in regions which are not so hot.						X			
6. The degree to which people are made uncomfortable by hot or cold temperatures is affected by the amount of humidity and by wind velocity.									
7. Water is evaporated from the ocean, is carried in clouds by the wind, is dropped on land areas through precipitation, and is then evaporated once more or runs off by way of rivers and underground streams to the oceans.									
# a. Rivers flow from higher elevation to lower elevations.									
b. If lakes have no outlets, they are likely to develop into salt-water lakes or dry up into salt beds.									
# c. Mountains frequently provide sources of water for rivers and so for irrigation.						X			

	Overview of U.S.	Twin Cities	Red River	Mid-west	New York	Birming-ham	Phoen-ix	Los Angeles
8. The rotation and inclination of the earth and the revolution of the earth around the sun have a number of effects upon climate.	X							
* a. The rotation of the earth produces day and night, while the inclination of the earth and its revolution around the sun results in seasons and differences in temperature on the earth's surface.	X							
b. The direction of prevailing winds is caused both directly and indirectly by the rotation of the earth and its revolution around the sun.	X							
1) Differences in air temperature lead to movements of air and winds. As warm air rises, cooler air moves in to replace it.	X							
c. The ocean currents are caused largely by the direction of prevailing winds and the rotation of the earth.	X							
* 9. Vegetation is affected by temperature, precipitation, and soil.	X	X	X				X	

	Seattle	West as Whole	Canada	Latin Am. as Whole	Sao Paulo	Buenos Aires	Manaus	Chile	Cuzco
8. The rotation and inclination of the earth and the revolution of the earth around the sun have a number of effects upon climate.									
*a. The rotation of the earth produces day and night, while the inclination of the earth and its revolution around the sun results in seasons and differences in temperature on the earth's surface.									
b. The direction of prevailing winds is caused both directly and indirectly by the rotation of the earth and its revolution around the sun.									
1) Differences in air temperature lead to movements of air and winds. As warm air rises, cooler air moves in to replace it.									
c. The ocean currentsare caused largely by the direction of prevailing winds and the rotation of the earth.									
*9. Vegetation is affected by temperature, precipitation, and soil.	X								

	Overview of U.S.	Twin Cities	Red River	Midwest	New York	Birmingham	Phoenix	Los Angeles
*a. Trees need more water than long grasses in order to grow; long grasses need more water than shorter grasses.	X	X						
b. Grass will grow in some areas which are too cold for trees to grow.	X							
+c. Deserts have very little rain, and precipitation is very irregular from one year to another.	X						X	X
d. Major climatic regions coincide approximately with major vegetation zones because vegetation is related to climatic conditions.								
*e. Vegetation and what can be grown is affected in part by soil.	X			X		X	X	X
+10. Soil in a particular place is affected by the type of basic rock in the region; the climate; vegetation; erosion; wind, glaciers, and rivers which move soil; as well as by how man treats the soil.	X	X	X	X	X	X	X	
a. Erosion of soil results from water and wind; it is more likely in areas where grass and trees have been removed.	X					X		
b. Soil in a particular place is affected in part by how man treats the soil.								

	Seattle	West as Whole	Canada	Latin Am. as Whole	Sao Paulo	Buenos Aires	Manaus	Chile	Cuzco
*a. Trees need more water than long grasses in order to grow; long grasses need more water than shorter grasses.									
b. Grass will grow in some areas which are too cold for trees to grow.									X
+c. Deserts have very little rain and precipitation is very irregular from one year to another.								Taught but not listed	
d. Major climatic regions coincide approximately with major vegetation zones because vegetation is related to climatic conditions.			X						
*e. Vegetation and what can be grown is affected in part by soil.			X		X	X			
+10. Soil in a particular place is affected by the type of basic rock in the region; the climate; vegetation; erosion; wind, glaciers, and rivers which move soil; as well as by how man treats the soil.	X				X	X	X		
a. Erosion of soil results from water and wind; it is more likely in areas where grass and trees have been removed.									
b. Soil in a particular place is affected in part by how man treats the soil.					X				

	Overview of U.S.	Twin Cities	Red River	Mid-West	[illegible]		Phoen-ix	Los Angeles
c. Soil in a particular place is affected in part by rivers which move soil and deposit it in an area.								
* d. Vegetation affects the development of soils.								
* 11. Nature changes the face of the earth through physical and biotic processes.	X	X	X	X		X	X	
a. A river which moves rapidly carries with it much sediment and frequently cuts deep valleys.	X							
b. A river which moves slowly across a plain drops gravel and sand that it has moved from higher areas.	X							
c. Soil in a particular place is affected by the type of basic rock in the region; the climate; vegetation; erosion; wind, graciers, and rivers which move soil; as well as by how man treats the soil.	X							
* 12. Man uses his physical environment in terms of his cultural values, perceptions, and level of technology.	X	X	X	X	X	X	X	X
* a. Man changes the character of the earth.	X	X	Taught but not listed	X	X	X	X	X

	Seattle	West as Whole	Canada	Latin Am. as Whole	Sao Paulo	Buenos Aires	Manaus	Chile	Cuzco
c. Soil in a particular place is affected in part by rivers which move soil and deposit it in an area.							X		
*d. Vegetation affects the development of soils.			X						
*11. Nature changes the face of the earth through physical and biotic processes.						X			
a. A river which moves rapidly carries with it much sediment and frequently cuts deep valleys.									
b. A river which moves slowly across a plain drops gravel and sand that it has moved from higher areas.									
c. Soil in a particular place is affected by the type of basic rock in the region, the climate; vegetation; erosion; wind, glaciers, and rivers which move soil; as well as by how man treats the soil.									
*12. Man uses his physical environment in terms of his cultural values, perceptions, and level of technology.	X	X	X	X	X	X	X	X	X
*a. Man changes the character of the earth.	X		X		X	X	X		Taught but not listed

	Overview of U.S.	Twin Cities	Red River	Mid-west	New York	Birming-ham	Phoen-ix	Los Angeles
*1) Terracing enables man to grow crops on steep slopes and also slows down water erosion.								
*2) Irrigation makes it possible to grow crops on land which otherwise would be too dry.							X	X
3) The present landscape contains many remnants of the past.						X		
4) See 10 b above								
b. Climate may set up limitations upon man's activities given a specific level of technology, but man has learned to overcome many of the earlier limitations.			X	X				X
1) See 12 a 2) above								X
*c. The topography of a region may present limitations, given a specific level of technology, but man has learned to overcome many of these limitations.								

	Seattle	West as Whole	Canada	Latin Am. as Whole	Sao Paulo	Buenos Aires	Manaus	Chile	Cuzco
*1) Terracing enables man to grow crops on steep slopes and also slows down water erosion.									X
*2) Irrigation makes it possible to grow crops on land which otherwise would be too dry.									X
3) The present landscape contains many remnants of the past.									
4) See 10 b above.					X				
b. Climate may set up limitations upon man's activities given a specific level of technology, but man has learned to overcome many of the earlier limitations.			X					X	
1) See 12 a 2) above.									
*c. The topography of a region may present limitations, given a specific level of technology, but man has learned to overcome many of these limitations.			X	X	X		X		X

	Overview of U.S.	Twin Cities	Red River	Mid-west	New York	Birming-ham	Phoen-ix	Los Angeles
1) Some types of land forms hamper the construction of railroads and highways, although technological advances have overcome many topographic limitations.				X	X			
d. Types of agriculture in a region depend upon man's cultural values, perceptions, and technology as well as upon climate, soils, and topography.			X	X	X	X	Taught but not listed as objective	X
e. The value of land tends to be related to a number of factors such as moisture, soil, temperature, growing season, population density, and transportation facilities.	X							X
f. The significance of location depends upon cultural developments both within and outside a country or region.		X	X	X	X	X	X	X
1) A change in situation brings about a corresponding change in the use of a site.		X	X		X	X	X	X

	Seattle	West as Whole	Canada	Latin Am. as Whole	Sao Paulo	Buenos Aires	Manaus	Chile	Cuzco
1) Some types of land forms hamper the construction of railroads and highways, although technological advances have overcome many topographic limitations.									
d. Types of agriculture in a region depend upon man's cultural values, perceptions, and technology as well as upon climate, soils, and topography.	X		X		X	X	X		Taught but not listed as objective
e. The value of land tends to be related to a number of factors such as moisture, soil, temperature, growing season, population density, and transportation facilities.									
f. The significance of location depends upon cultural developments both within and outside of a country or region.	X		X		X	X	X	X	
1) A change in a situation brings about a corresponding change in the use of a site.	X		X			X			

	Overview of U.S.	Twin Cities	Red River	Mid-west	New York	Birming-ham	Phoen-ix	Los Angeles
a) Discoveries of new resources in surrounding areas represent a change in situation, and a change in situation can greatly affect man's use of his environment at a particular site.								X
b) Improved transportation facilities make possible wider and bigger markets as well as better and less costly access to resources.		X			X	X	X	
g. Natural resources are of little value until man acquires the skill necessary for their utilization or sees a reason for using them.						X	X	
h. What a country produces will depend upon demand (or how much of the product people will buy) as well as upon available resources, labor, and capital.								

	Seattle	West as Whole	Canada	Latin Am. as Whole	Sao Paulo	Buenos Aires	Manaus	Chile	Cuzco
a) Discoveries of new resources in surrounding areas represent a change in situation, and a change in situation can greatly affect man's use of his environment at a particular site.									
b) Improved transportation facilities make possible wider and bigger markets as well as better and less costly access to resources.	X		X		X	X	X		
g. Natural resources are of little value until man acquires the skill necessary for their utilization or sees a reason for using them.			X						
h. What a country produces will depend upon demand (or how much of the product people will buy) as well as upon available resources, labor, and capital.			X						

	Overview of U.S.	Twin Cities	Red River	Mid-west	New York	Birming-ham	Phoen-ix	Los Angeles
i. Whether or not a country's size provides more advantages or disadvantages depends upon the problems inhabitants face at a particular time, upon their goals, and upon their level of technology.								
j. Political boundaries are man-made and frequently do not follow any natural physical boundaries.	X			X				
*13. Population is distributed unevenly over the earth's surface; many of the land areas are thinly populated.	X		X	X	X			X
*a. Large cities are characterized by a large number of people per square mile.	X			X	X			X
*b. A number of factors--climate surface features, natural resources, accessibility and history--affect settlement patterns.	X	X	X	X	X	X	X	

	Seattle	West as Whole	Canada	Latin Am. as Whole	Sao Paulo	Buenos Aires	Manaus	Chile	Cuzco
i. Whether or not a country's size provides more advantages or disadvantages depends upon the problems inhabitants face at a particular time, upon their goals, and upon their level of technology.			X						
j. Political boundaries are man-made and frequently do not follow any natural physical boundaries.			X					X	
13. Population is distributed unevenly over the earth's surface; many of the land areas are thinly populated.		X	X			X	X		
* a. Large cities are characterized by a large number of people per square mile.									
b. A number of factors -- climate, surface features, natural resources, accessibility and history -- affect settlement patterns.	X		X	X			X	X	X

	Overview of U.S.	Twin Cities	Red River	Mid-West	New York	Birming-ham	Phoen-ix	Los Angeles
1) Men carry on more activities on plains than in hills and more in hills than in mountains except in the low latitudes where climate at lower elevations leads people to seek cooler areas in the highlands.	X							
2) Within certain limitations, moist areas tend to have a higher population density than dry areas. However, population distribution reflects man's values and his technology as well as physical features of an area.	X							
*14. Some things can be produced better in one place than in another because of climate, resources, transportation routes, access to resources, access to markets, people's skills, etc.	X	X		X		X	X	X

	Seattle	West as Whole	Canada	Latin Am. as Whole	Sao Paulo	Buenos Aires	Manaus	Chile	Cuzco
1) Men carry on more activities on plains than in hills and more in hills than in mountains except in the low latitudes where climate at lower elevations leads people to seek cooler areas in the highlands.		X		X					X
2) Within certain limitations, moist areas tend to have a higher population density than dry areas. However, population distribution reflects man's values and his technology as well as physical features of an area.				X			X		
*14. Some things can be produced better in one place than in another because of climate, resources, transportation routes, access to resources, access to markets, people's skills, etc.	X				X	X	X	X	

	Overview of U.S.	Twin Cities	Red River	Mid-West	New York	Birming-ham	Phoen-ix	Los Angeles
a. Differing crops need differing amounts of rainfall and differing temperatures and number of frostfree days in order to grow; they need water and dryness at different times during their period of growth.	X		X	X	X	X		X
b. Grain crops are raised more easily on relatively flat lands than in hills and mountains.				X				
c. Forests can be used to obtain lumber and other timber products such as paper, turpentine, nuts, etc.,depending upon the kinds of trees in the forest.	X	X				X		
d. Location of production is influcenced by costs of land needed for a factory or business.					X			
e. The growth of factories and other industries in a town attract people, stores, etc., which in turn make the area more attractive to new factories and stores and also stimulate the growth of old ones.		X			X	X	X	X

	Seattle	West as Whole	Canada	Latin Am. as Whole	Sao Paulo	Buenos Aires	Manaus	Chile	Cuzco
a. Differing crops heed differing amounts of rainfall and differing temperatures and number of frostfree days in order to grow; they need water and dryness at different times during their period of growth.							X		
b. Grain crops are raised more easily on relatively flat lands than in hills and mountains.						X			
c. Forests can be used to obtain lumber and other timber products such as paper, turpentine, nuts, etc., depending upon the kinds of trees in the forest.	X						X		
d. Location of production is influenced by costs of land needed for a factory or business.									
e. The growth of factories and other industries in a town attract people, stores, etc., which in turn make the area more attractive to new factories and stores and also stimulate the growth of old ones.	X		X						

	Overview of U.S.	Twin Cities	Red River	Mid-west	New York	Birming-ham	Phoen-ix	Los Angeles
f. Factories must have some form of power to run machinery.		X		X	X	X	X	
1) Power for industry is obtained from the use of coal, oil, natural gas, water, and nuclear energy.	X	X		X		X	X	
a) Power for industry may be obtained from the use of water.				X				X
g. A place needs cheap and rapid transportation in order to carry on much trade with other places or even to carry on the normal business activities of a city.		X		X	X	X	X	X
+1) Towns need means of shipping goods in and out; they are likely to grow up where transportation is good, particularly where different types of transportation meet.		X	X	X		X		X
a) Cities which become big trading centers tend to grow up where there is a break in transportation and so where goods must be moved from one type of transportation to another or from one company's transportation facilities to those of another company.		X		X	X			X

	Seattle	West as Whole	Canada	Latin Am. as Whole	Sao Paulo	Buenos Aires	Manaus	Chile	Cuzco
f. Factores must have some form of power to run machinery.					X				
1) Power for industry is obtained from the use of coal, oil, natural gas, water and nuclear energy.			X		X				
a) Power for industry may be obtained from the use of water.	X								
g. A place nneds cheap and rapid transportation in order to carry on much trade with other places or even to carry on the normal business activities of a city.					X				
1) Towns need means of shipping goods in and out; they are likely to grow up where transportation is good, particularly where different types of transportation meet.	X		X			X	X		
a) Cities which become big trading centers tend to grow up where there is a break in transportation and so where goods must be moved from one type of transportation to another or from one company's transportation facilities to those of another company.	X		X			X	X		

	Overview of U.S.	Twin Cities	Red River	Mid-west	New York	Birming-ham	Phoen-ix	Los Angeles
2) Inland water routes provide cheaper transportation for heavy goods than do other types of transportation.		X		X	X	X		
3) Factories need good transportation facilities, but large cities with many factories and large numbers of people also attract improved transportation facilities.		X						
4) Transportation facilities are usually developed to connect population centers, although at times they are developed to open up areas of important resources.								
h. Since coal is very bulky and so costly to transport except by water, most plants which use coal to make electricity are located near the source of coal or in a port city near the place at which the coal is unloaded from boats.		X			X			
i. Costs which must be covered in sales prices if a company is to survive include assembly costs of ingredients, cost of ingredients and labor, and cost of transporting goods to markets.						X		

	Seattle	West as Whole	Canada	Latin Am. as Whole	Sao Paulo	Buenos Aires	Manaus	Chile	Cuzco
2) Inland water routes provide cheaper transportation for heavy goods than do other types of transportation.									
3) Factories need good transportation facilities, but large cities with many factories and large numbers of people also attract improved transportation facilities.	X		X			X			
4) Transportation facilities are usually developed to connect population centers, although at times they are developed to open up areas of important resources.			X						
h. Since coal is very bulky and so costly to transport except by water, most plants which use coal to make electricity are located near the source of coal or in a port city near the place at which the coal is unloaded from boats.									
i. Costs which must be covered in sales prices if a company is to survive include assembly costs of ingredients, cost of ingredients and labor, and cost of transporting goods to markets.									

	Overview of U.S.	Twin Cities	Red River	Mid-west	New York	Birming-ham	Phoen-ix	Los Angeles
j. Industry is dependent upon iron and steel for machines even when the factory does not use steel as a resource in making its products.		X		X				
k. Today factories and other producers tend to locate close to the source of needed raw materials if these materials are perishable or heavier or bulkier than their finished product; factories tend to locate closer to their markets than to the source of needed materials if their products are heavier and bulkier than the raw materials and if their products are perishable.		X		X	X			X
l. Factories which are not close to the source of their raw materials or to their markets may develop for a number of reasons such as: (1) new ideas of people in the area, (2) the number of skilled workers in the area who developed their skills by working in other related types of jobs, (3) the need of earlier companies to switch to new products in order to remain in business.		X						
15. Certain physical features of a site are more desirable than others for the development of a port city.					X			

	Seattle	West as Whole	Canada	Latin Am. as Whole	Sao Paulo	Buenos Aires	Manaus	Chile	Cuzco
j. Industry is dependent upon iron and steel for machines even when the factory does not use steel as a resource in making its products.									
k. Today factories and other producers tend to locate close to the source of needed raw materials if these materials are perishable or heavier or bulkier than their finished product; factories tend to locate closer to their markets than to the source of needed materials if their products are heavier and bulkier than the raw materials and if their products are perishable.									
l. Factories which are not close to the source of their raw materials or to their markets may develop for a number of reasons such as: (1) new ideas of people in the area, (2) the number of skilled workers in the area who developed their skills by working in other related types of jobs, (3) the need of earlier companies to switch to new products in order to remain in business.									
15. Certain physical features of a site are more desirable than others for the development of a port city.	X				X				

	Overview of U.S.	Twin Cities	Red River	Mid-west	New York	Birming-ham	Phoen-ix	Los Angeles
a. When good physical features of site are combined with adequate transportation connections to the hinterland, an important port city can be developed.					X			
16. The value of land tends to be related to a number of factors such as moisture, soil, temperature, and growing season, population density, and transportation facilities.	X						X	
*17. Specialization of individuals, business firms, and regions makesfor interdependence.		X	X	X	X	X	X	X
*a. The people who live in one community depend upon each other for different goods and services and for markets for their goods.		X	X		X		X	
*1) Cities usually have a greater division of labor and specialization than small towns or farm areas.		X						
*b. People in most societies of the world depend upon people who live in other communities, regions, and countries for goods and services and for markets for their goods.	X	X	X	X	X	X	X	X

	Seattle	West as Whole	Canada	Latin Am. as Whole	Sao Paulo	Buenos Aires	Manaus	Chile	Cuzco
a. When good physical features of site are combined with adequate transportation connections to the hinterland, an important port city can be developed.									
16. The value of land tends to be related to a number of factors such as moisture, soil, temperature, and growing season, population density, and transportation facilities.									
*17. Specialization of individuals, business firms, and regions makes for interdependence.	X				X		X	X	
*a. The people who live in one community depend upon each other for different goods and services and for markets for their goods.	X								
*1) Cities usually have a greater division of labor and specialization than small towns or farm areas.									
*b. People in most societies of the world depend upon people who live in other communities, regions, and countries for goods and services and for markets for their goods.	X	X	X			X	X		

	Overview of U.S.	Twin Cities	Red River	Mid-west	New York	Birming-ham	Phoen-ix	Los Angeles
1) Countries trade goods which they can produce better for those which they cannot produce as profitably if at all.								
c. Cities are likely to grow up if they perform functions which are needed by the surrounding community or for a larger functional region.		X			X		X	X
1) A town or city may serve as a central point to which produce comes from a hinterland for distribution to other places and to which supplies come from other places for distribution to the hinterland. The central place gathers, stores, and ships goods. It may also process goods and provide services for the region which it serves.							X	
2) Central places may provide some fundtions for their hinterland, some for their state and region, and some for the country as a whole.							X	

	Seattle	West as Whole	Canada	Latin Am. as Whole	Sao Paulo	Buenos Aires	Manaus	Chile	Cuzco
1) Countries trade goods which they can produce better for those which they cannot produce as profitably if at all.			X						
c. Cities are likely to grow up if they perform functions which are needed by the surrounding community or for a larger functional region.	X				X	X	X		X
1) A town or city may serve as a central point to which produce comes from a hinterland for distribution to other places and to which supplies come from other places for distribution to the hinterland. The central place gathers, stores, and ships goods. It may also process goods and provide services for the region which it serves.									
2) Central places may provide some functions for their hinterland, some for their state and region, and some for the country as a whole.			X						

	Overview of U.S.	Twin Cities	Red River	Mid-west	New York	Birming-ham	Phoen-ix	Los Angeles
d. When a community specializes upon one industry or crop, it is more likely to be affected badly by economic changes within the country as a whole than are those which have diversified their industry.						X		
1) An urban center based on only one commodity will thrive only so long as that commodity thrives.								
e. Diversification of production makes a company or a region less dependent upon price fluctuations for one product or upon the supply of specific resources.		X		X		X	X	
+18. The world is a community of inter-dependent countries.								
19. A region is an area of one or more homogeneous features. The core area is highly homogeneous, but there are transitional zones where boundaries are drawn between different regions.	X'	X		X		X		

	Seattle	West as Whole	Canada	Latin Am. as Whole	Sao Paulo	Buenos Aires	Manaus	Chile	Cuzco
d. When a community specializes upon one industry or crop, it is more likely to be affected badly by economic changes within the country as a whole than are those which have diversified their industry.									
1) An urban center based on only one commodity will thrive only so long as that commodity thrives.							X		
e. Diversification of production makes a company or a region less dependent upon price fluctuations for one product or upon the supply of specific resources.							X		X
+18. The world is a community of inter-dependent countries.	X		X	X				X	
19. A region is an area of one or more homogeneous features. The core area is highly homogeneous, but there are transitional zones where boundaries are drawn between different regions.	X	X	X	X		X		X	X

	Overview of U.S.	Twin Cities	Red River	Mid-west	New York	Birming-ham	Phoen-ix	Los Angeles
a. Every area on earth contains a combination of phenomena which share the space of places and regions. Some of these phenomena are closely interrelated, while others merely happen to be there and may have no causal dependence upon the others. Those phenomena which are tied together causally result in places and regions of distrinctive character.								
b. Regions are delimited on many different bases, depending upon the purpose of the study. Some are delimited on the basis of a single phenomenon, some on the basis of multiple phenomena, and some on the basis of functional relationships.	X	X		X		X		
* c. Different parts of a city usually have different but interrelated functions.		X						
20. Geographers seek information about areas on the earth's surface which enables them to compare, synthesize, and generalize about these areas.	X							
a. Geographers ask different questions about places, depending upon their purposes at the moment.	X							

	Seattle	West as Whole	Canada	Latin Am. as Whole	Sao Paulo	Buenos Aires	Manaus	Chile	Cuzco
a. Every area on earth contains a combination of phenomena which share the space of places and regions. Some of these phenomena are closely interrelated, while others merely happen to be there and may have no causal dependence upon the others. Those phenomena which are tied together causally result in places and regions of distinctive character.					X				
b. Regions are delimited on many different bases, depending upon the purpose of the study. Some are delimited on the basis of a single phenomenon, some on the basis of multiple phenomena, and some on the basis of functional relationships.	X	X	X	X					
*c. Different parts of a city usually have different but interrelated functions.									
20. Geographers seek information about areas on the earth's surface which enables them to compare, synthesize, and generalize about these areas.				X					
a. Geographers ask different questions about places, depending upon their purposes at the moment.				X					

	Overview of U.S.	Twin Cities	Red River	Mid-west	New York	Birming-ham	Phoen-ix	Los Angeles
21. Maps make it possible to discern patterns and relationships among a vast amount of data.	X							
22. All maps contain distortions of one kind or another; each kind of map projection has both advantages and disadvantages, depending upon one's purpose in using a map.	X							
23. The greater the population density and the more complex the technological system, the greater the need for certain general governmental services such as roads, public health facilities, public water supply, and institutions for making and enforcing laws.								X
* a. The greater the population density, the greater the need for more laws.					X			
b. Urban problems generally increase in proportion to the increase in density of population at a particular site.					X			
*24. Every culture must provide for the elementary biological requirements of man.					X			
*25. Governments must provide many services which people cannot provide for themselves.					X		X	

	Seattle	West as Whole	Canada	Latin Am. as Whole	Sao Paulo	Buenos Aires	Manaus	Chile	Cuzco
21. Maps make it possible to discern patterns and relationships among a vast amount of data.				X					
22. All maps contain distortions of one kind or another; each kind of map projection has both advantages and disadvantages, depending upon one's purpose in using a map.									
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	Overview of U.S.	Twin Cities	Red River	Mid-west	New York	Birming-ham	Phoen-ix	Los Angeles
*26. Ways of living differ from one society to another.								
*a. People in different societies differ as to how they expect people to act and as to what they think good and bad--what they value.		X			X			
*b. People perceive things in terms of their culture and total life experiences.					X			
*27. Although culture is always changing, certain parts or elements may -- persist over long periods of time.			X		X			X
* a. Culture traits may change by a process of diffusion.			X					
1) Migration involves the movement of culture and material objects to other parts of the world and results in change in those areas.							X	
2) When people are in contact with each other, they tend to borrow cultural traits.					X		X	
*b. Innovations occur in all societies; they occur in ideas and behavior, not just in things.			X					

	Seattle	West as Whole	Canada	Latin Am. as Whole	Sao Paulo	Buenos Aires	Manaus	Chile	Cuzco
*26. Ways of living differ from one society to another.				X					X
*a. People in different societies differ as to how they expect people to act and as to what they think good and bad--what they value.									X
*b. People perceive things in terms of their culture and total life experiences.									
*27. Although culture is always changing, certain parts or elements may persist over long periods of time.	X						X		X
*a. Culture traits may change by a process of diffusion.	X					X	X		
1) Migration involves the movement of culture and material objects to other parts of the world and results in change in those areas.	X			X		X			
2) When people are in contact with each other, they tend to borrow cultural traits.	X								
*b. Innovations occur in all societies; they occur in ideas and behavior, not just in things.									

	Overview of U.S.	Twin Cities	Red River	Mid-west	New York	Birming-ham	Phoen-ix	Los Angeles
*c. Changes in one aspect of a culture will have effects on other aspects; changes will ramify, whether they are technological, in social organization, in ideology, or whatever else is a part of the cultural system.					X			X
*d. Some values are conducive to change; some make planned change difficult.								
*28. Output is affected by the quality as well as by the quantity of resources; quality is affected by access as well as by fertility, richness, etc.								
* 29. Economic output is affected by the quality of labor or labor skills as well as by the quantity of labor.								
*a. Output is affected by the quantity of labor.								
1) The supply of labor is affected by the proportion of the population able and willing to work and by the number of hours they are willing to work.								
b. Education affects the quality of labor and labor productivity.								

	Seattle	West as Whole	Canada	Latin Am. as Whole	Sao Paulo	Buenos Aires	Manaus	Chile	Cuzco
*c. Changes in one aspect of a culture will have effects on other aspects; changes will ramify, whether they are technological, in social organization , in ideology, or whatever else is a part of the cultural system.						X			X
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*28. Output is affected by the quality as well as by the quantity of resources; quality is affected by access as well as by fertility, richness, etc.							X		
*29. Economic output is affected by the quality of labor and labor skills as well as by the quantity of labor							X		
*a. Output is affected by the quantity of labor.							X		
1) The supply of labbr is affected by the proportion of the population able and willing to work and by the number of hours they are willing to work.							X		
b. Education affects the quality of labor and labor productivity.									X

	Overview of U.S.	Twin Cities	Red River	Mid-west	New York	Birming-ham	Phoen-ix	Los Angeles
* 30. Tools, machinery, and power make possible greater production per person.	X	X	X	X	X		X	
31. New innovations or inventions and discoveries open up new fields of production and/or make possible an increased output in old fields of production.		X		X		X		X
*32. The organizational structure of the total economy or of any large section of it (such as agriculture) affects efficiency of production and output.								
*a. Output can be increased by a more efficient combination of productive resources (by the way in which production is organized.)								
*33. Other things being equal, the price of a good rises when the demand for the good exceeds the supply for the good and falls when the supply for the good is larger than the demand at the existing price.			X		X			X
a. The demand for goods is affected by the ability to pay as well as by desire.								

	Seattle	West as Whole	Canada	Latin Am. as Whole	Sao Paulo	Buenos Aires	Manaus	Chile	Cuzco
*30. Tools, machinery, and power make possible greater production per person.						X		X	X
31. New innovations or inventions and discoveries open up new fields of production and/or make possible an increased output in old fields of production.						X	X		
*32. The organizational structure of the total economy or of any large section of it (such as agriculture) affects efficiency of production and output.								X	
*a. Output can be increased by a more efficient combination of productive resources (by the way in which production is organized.)							X		
*33. Other things being equal, the price of a good rises when the demand for the good exceeds the supply for the good and falls when the supply for the good is larger than the demand at the existing price.							X		
a. The demand for goods is affected by the ability to pay as well as by desire.	X								

	Overview of U.S.	Twin Cities	Red River	Mid-west	New York	Birming-ham	Phoen-ix	Los Angeles
*34. Demand affects the supply of goods and services by affecting prices. Other things being equal, the higher the price for a good, the larger the quantity which will become available for sale.	X							
*35. Firms compete with each other in many ways; this competition affects how things are produced.					X			
*a. Business enterprises (or governments) may compete with each other by trying to improve the quality of their products.							X	
*b. Business enterprises (or states) may compete with each other by heavy advertising to make their products better known or increase the demand for their products rather than for competing goods.							X	
*36. Other things being equal, most people wish to obtain the best income possible in order to get the largest amount of desired goods and services as possible.			X		X			
*a. People tend to work hardest at those jobs or invest their money in those enterprises for which they will receive the greatest incentives (monetary and non-monetary).								

	Seattle	West as Whole	Canada	Latin Am. as Whole	Sao Paulo	Buenos Aires	Manaus	Chile	Cuzco
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*36. Other things being equal, most people wish to obtain the best income possible in order to get the largest amount of desired goods and services as possible.									
*a. People tend to work hardest at those jobs or invest their money in those enterprises for which they will receive the greatest incentives (monetary and mon-monetary).					X				

	Overview of U.S.	Twin Cities	Red River	Mid-west	New York	Birming-ham	Phoen-ix	Los Angeles
37. A man's job opportunities are limited by his training and skills.								
38. The power to allocate resources is important to the power to control what and how much will be produced.								
* 39. Barter consists of the exchange of goods and services for other goods and services, without the use of money.			X					
40. Archaelogists use a variety of techniques to date remains and to try and figure out how early men lived.							X	
41. Nations may pool their resources and/or power behind common goals in varying systems of alliances, combinations, and cooperative projects.								

	Seattle	West as Whole	Canada	Latin Am. as Whole	Sao Paulo	Buenos Aires	Manaus	Chile	Cuzco
37. A man's job opportunities are limited by his training and skills.					X				
38. The power to allocate resources is important to the power to control what and how much will be produced.								X	
* 39. Barter consists of the exchange of goods and services for other godds and services, without the use of money.									
40. Archaelogists use a variety of techniques to date remains and to try and figure out how early men lived.									
41. Nations may pool their resources and/or power behind common goals in varying systems of alliances, combinations, and cooperative projects.			X						